REMARKS

Claims 1-24 were presented for examination in the present application. This amendment cancels claims 1-24 without prejudice and adds new claims 25-31. Thus, claims 25-31 are presented for consideration upon entry of this amendment. Claim 25 is independent.

Applicants note that the Notification of Transmittal of the International Search Report dated 17 March 2003 for Application No. PCT/PH02/00018 submitted in the Information Disclosure Statement mailed August 24, 2005 was not initialed on Form PTO-1449 included with the Office Action. Applicants respectfully submit that the Notification of Transmittal of the International Search Report dated 17 March 2003 for Application No. PCT/PH02/00018 was included in Form PTO-1449 and a copy thereof was submitted therewith. Therefore, Applicants respectfully request a Form PTO-1449 including Examiner's initials on all references submitted in the Information Disclosure Statement submitted August 24, 2005.

Independent claim 1, as well as dependent claims 2-4, 7 and 18, were rejected under 35 U.S.C. §102(e) over U.S. Patent No. 6,667,830 to Iketaki (hereinafter "Iketaki"). Independent claims 1 and 22, as well as dependent claims 7, 18-21 and 24, were rejected under 35 U.S.C. §103(a) over U.S. Patent No. 6,369,928 to Mandella et al. (hereinafter "Mandella") in view of U.S. Patent No. 6,208,886 to Alfano (hereinafter "Alfano"). Dependent claims 2-6, 10-15 and 23, were rejected under 35 U.S.C. §103(a) over Mandella in view Alfano as applied to claims 1 and 22 above, and further in view of Bickel, G.A. et al., Journal of Chemical Physics 1987, 86, 1752-1760 (hereinafter "Bickel"). Dependent claim 8, was rejected under 35 U.S.C. §103(a) over Mandella in view Alfano as applied to claim 1 above, and further in view of U.S. Patent Application Publication No. 2003/0013086 to Kask (hereinafter "Kask"). Dependent claim 9, was rejected under 35 U.S.C. §103(a) over Mandella in view Alfano as applied to claim 1 above, and further in view of Kask. Dependent claims 16 and 17, were rejected under 35 U.S.C. §103(a) over Mandella in view Alfano and Bickel as applied to claim 13

above, and further in view of U.S. Patent No. 5,491,344 to Kenny et al. (hereinafter "Kenny") or U.S. Patent No. 6,958,854 to Merriam et al. (hereinafter "Merriam").

In view of new claims 25-31 and the cancelation of claims 1-24, it is believed that the above rejections are rendered moot.

Further, the cited references fail to disclose or suggest independent claim 25, as well as claims 26-31 that depend therefrom, for at least the reasons set forth herein.

Independent claim 25 recites a method for optical excitation via a two-color (two-photon) absorption process comprising: optically pumping a Raman shifter by a laser wherein at least one mirror and a lens direct a pump beam produced by the laser into a Raman cell; adjusting a pump beam diameter of the pump beam by a laser polarizer and a diaphragm; collimating Raman outputs by a lens-diaphragm system and passed through at least one dichroic mirror that sequentially diverts the said Raman outputs to a first beam dump and a second beam dump; dispersing a first Raman output S1 and a second Raman output S2 from the Raman shifter by a first and a second Pellin-Broca prisms to generate two separate confocal excitation beams; varying excitation energies of the two confocal excitation beams by polarizers; directing the two confocal excitation beams to a sample by mirrors; and detecting an emitted light or an optical change from a sample.

In contrast, for example, Iketaki provides linear double resonance excitation microscopy. The method provides a linear double resonance absorption process where an excitation photon ($\lambda 1$ = 532 nm) excites the sample from real energy level 2 to a higher real energy level 3. Second excitation photon ($\lambda 2$ = 563 nm) of Iketaki excites the same sample from a lower energy level 1 to vacated level 2. Excitation beams $\lambda 1$ and $\lambda 2$ of Iketaki are collinear and not angled with respect to each other. Two excitation beams $\lambda 1$ and $\lambda 2$ of Iketaki are non-interacting (uncorrelated) and produced by two separate sources. Beam $\lambda 1$ is from a 532 nm Nd:YAG laser pumped BBO crystal. Beam $\lambda 2$ is from a Raman shifter [medium: $Ba(NO3)2$ crystal].

Although Mandella provides nonlinear two-color (two-photon) excitation, the excitation beam is not from a Raman shifter. Mandella provides two fiber-coupled excitation beams λ1 and λ2 are confocal in sample space but angled with respect to each other (dual illumination axis) using a scanning mirror.

Alfano provides a nonlinear multi-photon absorption process where photons are all of the same wavelength. In two-photon excitation, λ1 = λ2. Alfano provides only one focused excitation beam is used. The excitation beam of Alfano is not from a Raman shifter. The method provided by Alfano is for nonlinear multiphoton excitation tomography.

Bickel provides nonlinear two-color (two-photon) excitation of fluorescent sample. Two excitation beams λ1 and λ2 of Bickel are collinear and delivered to sample space using a dispersing prism-slit-Fresnel rhomb-focusing lens combination. Beams λ1 and λ2 of Bickel are produced by one and the same dye laser pumped Raman shifter (medium: Hydrogen gas). The dye laser is pumped by a 532 nm Nd:YAG laser. Bickel reported two-photon excitation of glyoxal with a Raman shifter, and, also reported two-color (two-photon) excitation of glyoxal with same Raman shifter.

Kask provides a method of extracting information about sample from photon counts (specific brightness) produced by said sample upon excitation, per time interval of defined length. The method of Kask provides for information and data processing.

Kenny provides simultaneous linear excitation of a sample at different excitation wavelengths. The excitation beams of Kenny are not confocal on a sample. Output from 266 nm Nd:YAG laser pumped Raman shifter (medium: mixture of hydrogen and methane gases) is delivered unto detection cell using optical fibers. The method of Kenny provides for linear multi-wavelength excitation of liquid sample in detection cell. Kenny provides linear multi-wavelength excitation of sample in liquid chromatograph.

Merriam provides no specified use in two-color (two-photon) excitation, instead Merriam provides a method that utilizes only one output beam. Merriam further provides design of 1062 nm Nd:YAG laser pumped Raman shifter with two Raman cells (medium: hydrogen or deuterium gas) for efficient production of stimulated and anti-stokes lines. The design of Raman shifter of Merriam has two Raman cells with an excitation light source and a high efficiency Raman shifter.

In view of the above, it is respectfully submitted that the present application is in condition for allowance. Such action is solicited.

If for any reason the Examiner feels that consultation with Applicants' attorney would be helpful in the advancement of the prosecution, the Examiner is invited to call the telephone number below.

Respectfully submitted,

September 13, 2010

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